REMARKS

This Amendment is a full and timely response to the Office Action dated September 28, 2007. Reexamination and reconsideration are respectfully requested.

Applicants appreciate Examiner's acknowledgment of patentable subject matter in claims 9, 11, 13, and 14. As suggested in the September Action, claims 11, 13, and 14 have been rewritten in independent form.

Claims 1, 3, 6, and 7 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Pat. No. 6,507,592 to Hurvig et al. ("Hurvig"). This rejection is respectfully traversed.

Hurvig teaches an apparatus for performing two-way communication in a time division multiplexed ("TDM") system. (Hurvig, Abstract). Each packet received by the apparatus is automatically associated with a received-time stamp by system hardware before it is placed in a buffer. (Hurvig, 13:34-40 and Figs. 2-3). This supposedly allows system software to accurately process incoming packets without the need for interrupts. (Hurvig, 13:67-14:3). Each packet to be transmitted by the apparatus is associated with a send-time stamp, indicating precisely when the packet should be transmitted. (Hurvig, 20:11-16). System hardware monitors a system clock and compares it against the send-time stamp to transmit the packet at the appropriate time. (Hurvig, 22:13-16). According to Hurvig, this apparatus can perform the bulk of packet-handling work in software (and is thus reconfigurable to updated data protocols) while still generating accurate timing information. (Hurvig, 3:30-62, 8:50-9:8). While Hurvig may teach a communication apparatus incorporating some time measurement features, it fails to teach or adequately suggest all of the features recited in Applicants' claims.

With regard to claims 1 and 6, Hurvig fails to teach or suggest all of the features recited therein. For example, Hurvig fails to teach or suggest "saving sender information [including a transmission time / showing conditions at a transmission time] of [a transmitted] packet, wherein said saved sender information remains saved after said packet is output to said network." Hurvig may teach inserting an "output time stamp value into each outgoing packet at a predetermined position in the packet and subsequently transfer[ing] the time stamped outgoing packet to the

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interface unit memory area." (Hurvig, 5:61-64). According to the September 28 Action, this teaching of Hurvig may arguably read on :"saving sender information." However, Hurvig does not teach that this output time stamp, or any other type of sender information, is saved and persists *after the packet is transmitted*. Rather, the output time stamp is merely stored within the packet itself, (Hurvig, 20:16-18, 22:36-38); once the packet is transmitted, all record of the transmission time is lost.

Furthermore, with specific regard to <u>claim 6</u>, which recites that the sender information "<u>show[s] conditions at a transmission time</u>," even if Hurvig could be read to suggest "saving" as recited, there is no suggestion as to recording other information showing *conditions* at a transmission time. The output time stamp value is merely the transmission time itself and not reflective of other conditions at that time.

For at least these reasons, claims 1 and 6 are patentable over Hurvig. Additionally, claims 2-5, which are dependent on claim 1 and incorporate all of the limitations recited therein, are also patentable over Hurvig for at least these reasons.

With regard to <u>claim 7</u>, Hurvig fails to teach or suggest all of the features recited therein. For example, Hurvig fails to teach or suggest

> *determination means for determining whether or not said information data received from said application at a higher level includes predetermined attached information to be attached to said packet.*

Hurvig may teach device registers that store specific control parameters of the data transmitting or receiving process (e.g., starting or suspending the transmitter or receiver, the number of bytes in a packet, the state of the packet filter, etc.) controlled by software. (Hurvig, 5:34-42). However, Hurvig does not teach that these registers determine anything with regards to the *contents* of the packets, such as whether said packets have attached predetermined information. (Contrast this content-neutral behavior of Hurvig with, for example, the TS header checker **1111** taught in Applicants' specification at page 48, which examines the content of the packet to determine whether a packet includes a PCR field. *See also* Applicants' specification, Figs. 8-10.) Furthermore, nowhere in

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Hurvig is it suggested that some packets may contain attached information (*arguendo*, time stamps) while others do not.

The September 28 Action asserts that "[i]n order to control the parameters, the device registers determine whether or not the data includes the specific parameters." This assertion is not supported by any portion of the Hurvig reference. While the registers may store various parameters relating to transmission, nowhere in Hurvig is it suggested that the *data* is examined to *determine* if these parameters are present, or that these parameters are *extracted* from said data.

Hurvig also fails to teach or suggest

> *control means for allocating an area in said payload storage means as an area to be used for storing said attached information if said determination means determines that said information data received from said application at a higher level includes said attached information* (**emphasis** added)

Even if the timestamps can be interpreted as the recited attached information, Hurvig does not teach that space within the payload storage means is selectively allocated for this information, based upon any condition. Rather, Hurvig teaches 32-bits of every packet is reserved for this transmission time information. (Hurvig, 13:3-9, 22:39-42, and Fig. 8).

The September 28 Action mistakenly asserts that "[t]here is nowhere in the claim that recites the space within the payload storage means is *selectively* allocated for this information." However, the language clearly recites the an apodosis ("allocating an area ...") and a protasis ("if said determination means determines ..."). The claim recites that space within the payload storage means is *selectively* allocated, based upon the result of said determination means.

For at least these reasons claim 7 is patentable over Hurvig. Furthermore, claims 8 and 9, which are dependent on claim 7 and incorporate all of the limitations recited therein, are also patentable over Hurvig for at least these reasons.

Accordingly, Applicants respectfully request that this rejection under 35 U.S.C. § 102(e) be withdrawn.

Claims 2, 4, 5, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurvig in view of U.S. Pat. No. 6,510,150 to Ngo ("Ngo"). This rejection is respectfully traversed.

Ngo teaches a method for synchronizing a TDM network, specifically a wireless network. (Ngo, Abstract). According to the teachings of Ngo, a base station transmits the network time at the beginning of each TDM cycle. (Ngo, 4:7-17). Each end terminal immediately receives the transmitted network time and compares it against a locally predicted value and stores the calculated difference, (Ngo, 4:18-24). However, the local time counter is not corrected until later in the network cycle when time constraints on the processor are less severe. (Ngo, 4:24-31). Similar to Hurvig, Ngo may teach a communication apparatus incorporating some time measurement features. However, neither reference nor any reasonable combination thereof, teaches or suggests all of the features recited in Applicants' claims.

As noted with regard to claim 1, Hurvig fails to teach or suggest "saving sender information including a transmission time of [a transmitted] packet, wherein said saved sender information remains saved after said packet is output to said network." Ngo also fails to teach or suggest this feature; Ngo does not teach anything with regard to saving information regarding data packets after they have been transmitted. No combination of these references would teach or suggest a feature that is lacking from both references. For at least this reason, claims 2, 4, 5, and 12, which are dependent on claim 1 and incorporate all of its limitations, are patentable over this combination of references.

Claims 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurvig in view of U.S. Pat. No. 5,926,458 to Yin ("Yin"). This rejection is respectfully traversed.

Yin teaches a system for prioritizing the transmission of data amongst a plurality of queues. As data is received by the apparatus, it is assigned to an appropriate queue. (Yin, 5:18-25). The apparatus then transmits data from the queue with a highest priority, (Yin, 5:27-32), and updates the priority of all the processed queue, (Yin, 5:56-67). According to Yin, this process allows for multiple queues of varying quality requirements to be transmitted through the

router without significant disruption. (Yin, 3:3-7). Yin may teach a communication apparatus that controls the transmission of packets. However, Yin, Hurvig, or any reasonable combination thereof, fails to teach or suggests all of the features recited in Applicants' claims.

As noted with regard to claim 7, Hurvig fails to teach or suggest the determination means recited therein. Yin also fails to teach or suggest this feature; while Yin may teach some analysis of the contents of a packet header, (Yin, 5:21-23), there is no suggestion in Yin that some packets may contain the necessary queue-identifying information while others do not, nor is there any suggestion of a means to detect this type of distinction. No combination of these references would teach or suggest a feature that is lacking from both references. For at least this reason, claim 8, which is dependent on claim 7 and incorporates all of its limitations, is patentable over this combination of references.

Furthermore, no combination of these references teaches or suggests all of the features explicitly recited within claim 8. For example, neither reference teaches or suggests "writing information necessary for said transmission of said packet into said area allocated in said payload storage means as an area to be used for storing said transmission control information if said transmission condition is satisfied." Neither Hurvig nor Yin teaches or suggests conditionally writing necessary transmission control information into the payload storage area. In both references, packets are apparently stored within the queues in a ready to transmit state, merely waiting for the appropriate time (Hurvig) or access to the channel (Yin). When these respective events occur, neither reference teaches writing any additional information to the payload storage area.

The September 28 Action asserts that "Yin discloses a method for allocating packets to queues according to the queue service information." This appraisal of Yin may be accurate, however it does not address the recited limitations in Applicants' claim. At best, the cited passages arguably teach writing the various packets to the payload storage means. However, nowhere in Yin is it suggested that additional information necessary for the transmission of said packets (i.e., transmission control information) is also stored in a specifically allocated area of the payload storage means.
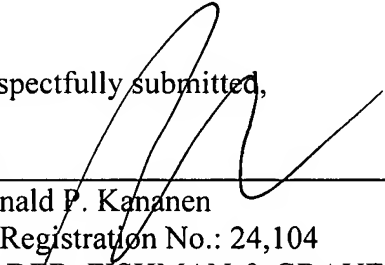
For at least these reasons claim 8 is patentable over this combination of references. Accordingly, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2850 from which the undersigned is authorized to draw.

Dated: November 28, 2007

Respectfully submitted,

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